## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 22 January 2004 (22.01.2004)

**PCT** 

## (10) International Publication Number WO 2004/007169 A1

(51) International Patent Classification<sup>7</sup>: 33/30, 45/66

B29C 45/17,

(21) International Application Number:

PCT/NL2003/000081

(22) International Filing Date: 6 February 2003 (06.02.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 1021064

12 July 2002 (12.07.2002) NI

- (71) Applicant (for all designated States except US): F.T. EN-GINEERING B.V. [NL/NL]; P.O. Box 76, NL-5670 AB Nuenen (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KRUIDERING, Ralph [NL/NL]; Sint Lambertusstraat 23, NL-5266 AC Cromvoirt (NL).
- (74) Agents: VAN WESTENBRUGGE, Andries et al.; Nederlandsch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

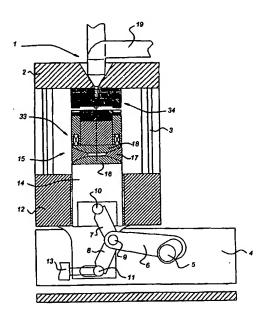
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INJECTION MOULDING DEVICE



(57) Abstract: Injection moulding device (1) consisting of two mould sections which (33, 34) can move with respect to one another and between which a mould cavity (36) is delimited. The movable mould section (33) is joined via an articulated joint (15) to the operating means (5-14) therefor which execute the closing movement. Centring means (25, 30) are present to centre the movable mould section (33) with respect to the stationary mould section when (34) the moulds close. An injection moulding device can optionally be equipped for compression-injection moulding of plastic. The operating means (5-14) can be constructed with the aid

